Strategic Plan of the National Ocean Service 2005-2010

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service

A Message from the Assistant Administrator

For the National Oceanic and Atmospheric Administration, I am pleased to present the *National Ocean Service Strategic Plan for 2005 to 2010.* This Plan heralds a new era for the ocean and coasts as NOS responds to *The Final Report of the U.S. Commission on Ocean Policy* (USCOP), 2004. NOS will lead the charge for action on recommendations from USCOP and our stakeholders to engender ecosystems-based management in ocean policy, improved ocean governance, a stewardship ethic, and better scientific understanding of marine and coastal environments. Our diverse capabilities and activities, talented workforce, and broad responsibilities make it possible to meet these challenges.

The NOS Strategic Plan is synchronous with the *NOAA Strategic Plan* — one NOAA, one workforce, and four major mission goals. In our Plan, we outline capabilities for realizing the NOAA Programs, recognizing that in these dynamic times for ocean and coastal issues, we will need to adapt to changing circumstances and demands. Foremost, the Plan sustains our vision to be *A Global Leader in Integrated Management of the Ocean,* striving for ideals like these:

People	Provide leadership through our most valued resource — our people — and encourage career development and ocean leadership at all levels.
Observations	Lead an Integrated Ocean Observing System (IOOS) to offer valuable information and services that make safe use of ocean and coastal resources.
Modeling	Apply effective models to forecast conditions in the ocean and coasts for coastal managers, and recreational and commercial maritime users.
Technology	Employ technologies to enhance our ability to understand ocean and coastal ecosystems, leading to more effective management.
Coasts	Help coastal communities promote a watershed- and ecosystems-based approach to managing ocean and coastal resources.
Partnerships	Forge partnerships across the ocean community to maximize individual ventures and ensure integrated resource management.

To realize our vision through the NOAA Programs, we will rely on the world-class expertise of our NOS employees and contractors and NOAA partners (National Weather Service, Oceanic and Atmospheric Research, National Marine Fisheries Service, National Environmental Satellite Data and Information Service, NOAA Marine and Aviation Operations, and Program Planning and Integration). We will foster stronger partnerships with the American people, government agencies, academia, and international, private, and nonprofit organizations. We will endeavor to produce high quality products and services and to model excellent ocean and coastal stewardship around the world. In this time of unprecedented national focus on ocean and coastal issues, we have an historic opportunity to sustain vibrant coastal communities and a healthy ocean environment for future generations. Together, we *can* do it.

I invite your comments on our Plan to execute our capabilities in achieving the NOAA Mission Goals and Programs during the next five years. As you review the NOS Plan, also explore the *NOAA Strategic Plan for 2005-2010* at www.noaa.gov/spo. I am honored and inspired to serve NOS, NOAA, and the American public in the coming years.

Richard W. Spinrad, Ph.D.
Assistant Administrator for Ocean Services and Coastal Zone Management

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Introduction

NOAA's Vision
An informed society that uses a comprehensive understanding of the role of the ***oceans, coasts,*** *and atmosphere in the* ***global ecosystem*** *to make the best social and economic decisions.*

NOAA's Mission
To understand and predict changes in Earth's environment and conserve and ***manage coastal and marine resources*** *to meet our Nation's economic, social, and environmental needs.*

The National Ocean Service (NOS) traces its long history to 1807 when President Thomas Jefferson created the Office of Coast Survey to produce nautical charts for U.S. waters. Today, we offer vital services in a diverse and expanded mission, using innovative resources to address challenges in ocean and coastal management, commerce, and policy. By creating strong partnerships within and outside of NOAA at local and international levels, we can achieve the vision and mission goals of NOS and NOAA. Our *Strategic Plan* shares our direction, our commitment, and our enthusiasm to take action for the ocean and coasts.

The NOS Vision
Global Leader in Integrated Management of the Ocean

Recent landmark reports from the U.S. Commission on Ocean Policy and the Pew Ocean Commission see NOS as pivotal to modernizing ocean governance. This is consistent with our vision is be a *Global Leader for Integrated Management of the Ocean.* We want to provide top-notch expertise, to influence ocean management on a global scale, to work with other nations and learn from them, and to lead international ocean policy formulation and governance. In our vision, we identify emerging issues in ocean and coastal management and lead the stewardship of these resources through execution of the NOAA Programs. We build the tools, information, and knowledge needed to solve problems and to empower public and private users. In our vision, we promote balanced decisions on ocean stewardship and effectively engage our stakeholders in the issues. The challenges we face to execute this vision will be more demanding of resources than ever before.

We can and will succeed, because already we:

- Conduct a wide range of ocean research and operational monitoring of the physical, chemical, and biological parameters of the ocean environment.
- Chart coasts and waterways and maintain the nation's geodetic reference system.
- Provide states with technical and financial aid to build local coastal management capacity.
- Protect and restore valuable ocean and coastal resources.
- Share beneficial approaches and technology for ocean protection with foreign partners.
- Lead efforts to develop integrated ocean observation and modeling systems.
- Provide new and innovative navigation products and services to support safe and efficient marine transportation.
- Advance marine resource conservation and assessment through ocean and coastal management programs.
- Communicate to the American public the need to balance the environmental and economic well being of coastal resources and communities.

In the next five years, we will invest in high priority areas that address national interests and hold exceptional promise to accelerate the frontiers of knowledge. Our core capabilities will require new approaches for efficient and environmentally sound use of ocean and coastal ecosystems.

Our stewardship partnerships are key to our success. To promote them, our priorities will be to:

The NOS Mission — ***To provide products, services, and information that promote safe navigation, support coastal communities, sustain marine ecosystems, and mitigate coastal hazards***

- Enhance leadership through predictive science, integrated coastal management, effective response and restoration, and improved navigation services. Employ new understanding and technologies to ensure products are useful.
- Expand stewardship linkages among local, state, and Federal programs, academic institutions, and others in the public and private sectors, including international partners.
- Employ innovation to improve government service, digital applications, and navigation products. In support of U.S. commerce, provide a more comprehensive set of information products to the transportation sector.
- Implement strong, integrated coastal research, monitoring, and assessment programs focused on the cumulative effects of human activities and supported by a high quality, independent cadre of scientists.
- Achieve sustainable balance between environmental protection and economic activities, improve efforts to preserve, protect, and manage sensitive coastal and marine habitats, and implement beneficial and cost-effective solutions to coastal problems.
- Engage a broader community of users on an ongoing basis, keeping them informed of NOS contributions, as well as new and improved tools and techniques, through new programs, activities, products, and services. Improve and customize products and services to better serve existing and new customers.

To execute the NOAA Programs, we offer more than 1,750 employees and contractors who work in 34 states and the American Flag territories. We operate 9 major offices, 5 laboratories, and 13 national marine sanctuaries. We support NOAA's fleet of ships and airplanes to gather and process data worldwide from the land, sea, and air. However, ocean governance is a challenge requiring more resources and infrastructure than one organization can wield. That is why our *Strategic Plan* shares our unique capabilities and structure, but also stresses how our vital partners from government, private sector, academia, and national and international organizations extend the value of each tax dollar we spend to protect and maintain our national heritage. NOAA is currently developing a set of Corporate Performance Measures that collectively measure the agency's progress towards achieving our strategic outcomes. When completed, those corporate measures that address programs that NOS is responsible for executing will be included in this plan.

NOS Role in Executing NOAA's Programs

NOS activities advance NOAA's mission goals and mission support goal. The *NOS Strategic Plan* outlines our execution of NOAA's Programs to meet NOAA's goals and outcomes. Each section of this Plan describes a NOAA mission goal, introduced by a table that shows linkages among NOAA outcomes and strategies and the NOAA Programs that we execute in whole or in part. The color-coded Programs are linked to specific NOAA's outcomes and strategies. What follows is a description of how we will execute NOAA's Programs within that NOAA mission goal. Programs shared by line offices are described in all relevant line office strategic plans.

NOAA's Mission Goals and Mission Support Goal

Ecosystems	Climate	Weather and Water	Commerce and Transportation
To protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management	To understand climate variability and change to enhance society's ability to plan and respond	To serve society's needs for weather and water information	To support the nation's commerce with information for safe, efficient, and environmentally sound transportation

Supporting and Enhancing NOAA's Mission — To provide critical support for NOAA's mission

Protect, Restore, and Manage the Use of Coastal and Ocean Resources Through an Ecosystem Approach to Management

NOAA Outcomes	NOAA Strategies Employed by NOS
Healthy and productive coastal and marine ecosystems that benefit society A well informed public that acts as a steward of coastal and marine ecosystems	Build and advance the capabilities of an ecological component of the NOAA global environmental observing system to monitor, assess, and predict national and regional ecosystem health, as well as to gather information consistent with established social and economic indicators
	Engage in technological and scientific exchange with our domestic and international partners to protect, restore, and manage marine resources within and beyond the Nation's borders
	Engage and collaborate with our partners to achieve regional objectives by delineating regional ecosystems, forming regional ecosystem councils, and implementing cooperative strategies to improve regional ecosystem health
	Improve resource management by advancing our understanding of ecosystems through better simulation and predictive models
	Develop coordinated regional and national outreach and education efforts to improve public understanding and involvement in stewardship of coastal and marine ecosystems
	Manage uses of ecosystems by applying scientifically sound observations, assessments, and research findings to ensure the sustainable use of resources and to balance competing uses of coastal and marine ecosystems

NOAA Programs Executed Wholly or in Part by NOS	*Coastal and Marine Resources*	*Corals*	*Ecosystem Observations*	*Ecosystem Research*	*Enforcement*	*Habitat*

Coastal and Marine Resources

In a rapidly changing global environment, our nation needs a stewardship ethic throughout its coastal areas. From watersheds to the ocean, NOAA's Coastal and Marine Resources Program (CMRP) carries out its Federal mandates for the American people to help Federal, state, local, and international managers protect, restore, and use coastal ecosystem services. At NOS, we will continue to balance competing interests through place-based management and conservation programs. With our partners, we will use applied research and technology development, capacity building, and stewardship to foster the critical building blocks needed for an ecosystem-based approach to managing vital resources. We will harness capabilities from the Office of Ocean and Coastal Resource Management; Coastal and Estuarine Land Conservation Program; Coastal Services Center; Coastal Zone Management Program; Cooperative Institute for Coastal and Estuarine Environmental Technology; International Program Office; Marine Protected Areas Center; National Estuarine Research Reserve System; National Marine Sanctuary Program; NOAA Ecosystem Research Program; and Special Projects Office.

Through CMRP, we will characterize and monitor resources within important ocean, coastal, and Great Lakes areas. Coastal and marine resource managers at the state and local level, CMRP's primary customers *and* partners, will apply science, technology, and reliable information to management decision-making. These capabilities will continually be enhanced through training and capacity building, so our customers are better equipped to develop solutions that respond to changing environmental, economic, and social conditions. CMRP will also engage customers to share best practices. Project matching funds from participating coastal states will help us carry out coastal economic, ecological, and cultural priorities in an integrated way. We must identify gaps in the protection of marine protected or managed areas and identify opportunities to fill major gaps in representative systems. We will continue protecting priority land and water habitats through acquisition and stewardship.

During the coming years, we will provide guidance and technical assistance to other Federal agencies and international organizations. Additionally, we will serve university researchers, educators, K-12 students, and adult audiences through research and education programs. We will continue to develop and make accessible the monitoring data, tools, decision support systems, and innovative technologies needed for management of coastal and marine areas.

Corals

Coral reefs are some of the oldest and most diverse ecosystems on the planet. They provide valuable resources and services to the public and are an integral part of the nation's natural resource heritage. However, most coral reef ecosystems are being degraded by a variety of threats, including pollution, overfishing, and disease. It is estimated that hard coral cover on reefs has been reduced by 80% in the Caribbean in just three decades. The Corals Program (CP) supports effective management and sound science to preserve, sustain, and restore coral reef ecosystems. Coral reef conservation provides economic benefits to industries such as tourism and fishing, offers potential new discoveries in medicine, and benefits coastal communities by preventing coastal erosion.

Our Office of Response and Restoration (ORR) leads the CP, which is a cross-NOAA program that includes the National Marine Fisheries Service (NMFS), the Office of Oceanic and Atmospheric Research (OAR), and the National Environmental Satellite, Data, and Information

Service (NESDIS). The CP strives to reduce the loss and degradation of coral reef ecosystems through NOAA activities, as well as through partnerships with government, private, academic, and other nongovernmental organizations at local to international levels.

For example, the CP conducts integrated observations and assessments of coral reefs as well as provides predictions, early warnings, and response programs to minimize impacts to reefs; conducts targeted research to understand the causes and consequences of coral reef decline; and conducts targeted outreach to educate those who can most impact their preservation. In addition, NOAA is co-chair of the U.S. Coral Reef Task Force, which includes 12 Federal agencies and 7 state and territory partners working to coordinate national coral reef conservation and management activities.

Ecosystem Observations

To support NOAA's goals for healthy marine ecosystems and recovery of protected species, NOS fosters the critical capability of providing at sea collection of scientifically credible, legally defensible, statistically valid ecosystem observation data. Through the National Centers for Coastal Ocean Science (NCCOS), we will work with OAR, NESDIS, and NMFS to carry out the Ecosystem Observations Program (EOP). We will continue to support the National Status and Trends Program under the Center for Coastal Monitoring and Assessment to continue work in ecosystem monitoring, assessment, and forecasting. Further, we will support needed technological advances for more efficient data entry, quality control, and archival systems to provide faster access to information across program areas. We believe this is necessary for sound research, reliable management, and effective decision-making by our stakeholders (NOAA scientists and decision-makers, other Federal agencies, state governments, environmental and conservation organizations, academia, and the public).

Ecosystem Research

Ecosystem research is central to understand how ecosystems function, to manage the health of ecosystems, and to predict ecosystems changes. NOS, OAR, and NMFS will contribute to the characterization of the structure, function, and condition of all parts of the ocean, coastal, and Great Lakes ecosystems through the Ecosystem Research Program (ERP). Ecosystem Research supports all other Ecosystem Goal Programs. Through our National Centers for Coastal Ocean Science (NCCOS), we will work to provide coastal managers scientific information needed to manage healthy ecosystems by providing: characterization, maps, and inventories of ecosystems; information on the causes and consequences for current ecosystem conditions; and tools and technologies developed to assist in decision-making processes. Critical for policy planning will be our development of ecosystem models to forecast changes to ecosystems and their component parts, including the effect of weather and climate on ecosystem function. Some research will focus on the integration and application of socioeconomic information and cost-benefit analyses with ecosystem models to achieve society's goals. We will explore and characterize the global ocean and develop tools and technologies needed to enable improved understanding and responsible use of these ecosystems, their component parts, and their resources.

We will help set benchmarks for measuring how well NOS helps protect, maintain, and improve ecosystems. We will educate stakeholders in order to realize effective and informed decision-making on the health and welfare of ecosystems. Strong partnerships are vital, and we will continue long-term affiliations with more than 300 organizations such as the Federal Department

of the Interior, Environmental Protection Agency, Food and Drug Administration, National Institute of Standards, National Aeronautics and Space Administration, U.S. Geological Survey, and U.S. Department of Agriculture, as well as state agencies, and academic institutions.

Enforcement

Enforcement within the National Marine Sanctuaries Program (NMSP) is critical to the success of the Coastal and Marine Resources Program. We will continue partnering with NOAA's Office for Law Enforcement (OLE) to enforce regulations in individual marine sanctuaries. OLE is the official enforcement entity in NOAA, and OLE personnel investigate and process sanctuary enforcement cases and provide an enforcement presence with on-the-water patrols at some sites. NOAA General Counsel for Enforcement and Litigation provides legal support on enforcement cases. Through NMSP, we will work closely with other Federal and State partners, some who are cross-deputized by NOAA, to enforce sanctuary regulations. Enforcement is also critical for effective management of coral reef ecosystems outside of National Marine Sanctuaries. The CP will continue to partner with OLE to adequately enforce regulations affecting coral reefs.

Habitat

Through our Office of Response & Restoration and other NOS offices, we work with NMFS to protect and restore coastal, marine, and Great Lakes habitats and natural resources. These habitats serve as vital nursery, feeding, and breeding grounds for marine and estuarine species, and support our coastal and national economies. When NOAA trust resources are affected by spills and releases of oil and hazardous substances, we collaborate with lead cleanup and co-trustee agencies to assess risk and damages to natural resources, minimize impacts, and restore habitat. Through this collaboration, we incorporate protection and restoration into cleanup actions and agreements. Through cooperative negotiated settlements with responsible parties or litigation, we obtain compensation for injuries to natural resources, in order to restore, improve, or protect habitat, and compensate the public for losses. To enhance habitat restoration project planning, implementation, and monitoring, we apply expertise from across NOS. For example, we apply navigation service expertise and technologies such as tidal datums, hydrologic monitoring, and digital elevation models, and scientific expertise in restoration monitoring to improve projects.

Over the next five years, we will focus on developing and applying more effective approaches and tools to accelerate recovery of injured resources and increase the quantity and quality of coastal habitat restoration efforts. We will continue to reduce costs and increase the timeliness and effectiveness of restoration efforts by integrating cleanup and restoration, increasing cooperative natural resource damage assessments, and leveraging resources to maximize benefits to coastal habitats. To build the capacity of our state, local, and tribal partners, we will focus on transferring and sharing tools and approaches. We plan to expand participation by the public and strengthen partnerships with our natural resource trustee partners. We will pursue a leading role in habitat restoration and protection through expanded efforts at local to national levels, for example, by supporting the Estuary Habitat Restoration Council. Using strengthened partnerships, and new and enhanced tools such as socioeconomic studies, a national estuaries restoration inventory, and Geographic Information Systems, we will strive to meet our mandate to protect and restore NOAA trust resources in the coastal U.S.

Understand Climate Variability and Change to Enhance Society's Ability to Plan and Respond

NOAA is deeply involved in advancing the science of climate change. At NOS, we develop state capabilities to plan for and manage the impacts of climate change and to protect key estuarine areas. We must also protect and conserve coral ecosystems in the context of a changing climate. Therefore, working closely with our NOAA partners, OAR and NESDIS, we will assist our state, local, and regional managers of ocean and coastal resources to help them accurately assess the impacts of climate variability and change. Our research and observations provide vital measurements and analysis that helps monitor sea level rise. We will continue to research how sea level rise impacts ecosystems and how to mitigate potential negative effects. Our Coastal Services Center and the Center for Operational Oceanographic Products and Services provide NOS leadership on these issues.

Serve Society's Needs for Weather and Water Information

NOAA Outcomes	**NOAA Strategies Employed by NOS**
□ Reduced loss of life, injury, and damage to the economy	□ Integrate an information enterprise that incorporates all stages from research to delivery, seeks better coordination of employee skills and training, and engages customers
	□ Build a broad-based and coordinated education and outreach program by engaging individuals in continuous learning toward a greater understanding of the impacts of weather and water on their lives
	□ Employ scientific and emerging technological capabilities to advance decision support services and to educate stakeholders
NOAA Programs Executed Wholly or in Part by NOS	*Coasts, Estuaries, and Oceans*

Coasts, Estuaries, and Oceans

Ocean and coastal managers must have reliable information to undertake effective management. We will provide the Coasts, Estuaries, and Oceans Program (CEO) with decision support tools and coastal remote-sensing products and services. With the National Weather Service (NWS), we will offer high quality observational data, helping to build capacity within resource and emergency management agencies to monitor and mitigate the impact of natural hazards and environmental stressors on coastal and marine ecosystems. Through the Sea Grant and National Estuarine Research Reserve System educational networks, we will extend our communications.

To advance an Integrated Ocean Observing System (IOOS), we will support the staffing and functions of Ocean.US and help set up the infrastructure (sensors, platforms, and data management and communication systems) and methodologies to collect, share, and integrate environmental data and create useful information products. Further, we will also foster organizational and governance structures (regional associations) necessary for regional partnership formation, user-driven requirements assessments, and system management and sustainability.

Through the Coastal Storms project, CEO will carry out pilot projects on hazard-related activities, collaborations, and research on a regional basis. These projects should generate

nationwide applications for planning, mitigation, and response activities. CEO will evaluate storm surge models to determine relative strengths and limitations. The Environmental Modeling Program will help us to couple ocean forecast and wave models and to incorporate outputs from high-resolution bay, estuarine, and riverine models. Finally, we will enhance existing models and integrate tidal and wind-driven effects to increase forecast accuracy.

Our Coastal Services Center (CSC) and Center for Operational Oceanographic Products and Services (CO-OPS) will carry out observational contributions as part of the Coastal Global Ocean Observing System (C-GOOS). CO-OPS will operate the National Water Level Observation Network to obtain tide and water level data and other oceanographic and meteorological data. Through CSC, our coordination of the Coastal Observation Technology System activities will help ensure that NOAA data standards are met in regional observational data streams sent to IOOS.

We will offer observational data and data integration capacity and will use modeling and analytical outputs to develop our products for NOAA Programs, including: Environmental Modeling; Weather and Water Science and Technology Infusion; Hydrology; and Local Forecasts and Warnings. Observational data and predictions can alert the management community to critical needs or priority regions. We will collaborate with groups such as the Coastal States Organization to identify critical needs at the state and local levels. Our national education networks will alert users to tools that help states and localities address development, mitigation, and management issues. CEO will rely on observational components within the Marine Transportation System and Ecosystem Observations Programs for data streams that contribute to IOOS.

Support the Nation's Commerce with Information for Safe, Efficient, and Environmentally Sound Transportation

<table>
<tr><th>NOAA Outcomes</th><th colspan="3">NOAA Strategies Employed by NOS</th></tr>
<tr><td rowspan="4">Safe, secure, and seamless movement of goods and people in the U.S. transportation system

Environmentally sound development and use of the U.S. transportation system</td><td colspan="3">Develop and apply new technologies, methods, and models to increase the capabilities, efficiencies, and accuracy of transportation-related products and services</td></tr>
<tr><td colspan="3">Develop and implement sophisticated assessment and prediction techniques, products, and services to support decisions on aviation, marine, and surface navigation efficiencies; coastal resource management; and transportation system management, operations, and planning</td></tr>
<tr><td colspan="3">Expand and enhance advanced technology monitoring and observing systems, such as weather and oceanographic observations, ice forecasts and nowcasts, hydrographic surveys, and precise positioning coordinates, to provide accurate, up-to-date information</td></tr>
<tr><td colspan="3">Build public understanding of the science and technology involved and the role of the environment in commerce and transportation through outreach, education, and industry collaboration.</td></tr>
<tr><td>NOAA Programs Executed Wholly or in Part by NOS</td><td>NOAA Emergency Response</td><td>Geodesy</td><td>Marine Transportation Systems</td></tr>
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NOAA Emergency Response

Thousands of incidents occur each year in which oil or chemicals are released into the environment as a result of accidents or natural disasters. Spills into our coastal waters, whether accidental or intentional, can harm people and the environment and cause substantial disruption of waterways with potential widespread economic impacts. The NOAA Emergency Response Program (NERP) provides scientific expertise for successful incident response, thus reducing harm to people, the economy, and the environment. Much of the work we do through the NOS Office of Response and Restoration is in cooperation with our strategic partners, NWS, NESDIS, NOAA's Homeland Security Program, and the U.S. Coast Guard. The challenges of hazardous cargoes and materials, aging landside facilities and infrastructure, oil and chemical spills, and threats to national security will require our skills from a broad range of scientific disciplines. Our expertise is used to forecast movement of spilled oil and chemicals, evaluate risks to natural and public resources, and determine response and cleanup options. To ensure responders are prepared when an incident occurs, the NERP routinely works with planners and responders, developing response plans, ensuring working knowledge of response tools, and providing a better understanding of all aspects of incident response.

Another imperative is to improve the tools and technology available to protect and aid recovery of coastal environments and communities from spills and other hazards. Through the Coastal Response Research Center, a partnership between NOAA and the University of New Hampshire, we will assemble the critical resources of research-oriented universities and NOAA in the area of oil and hazardous materials spills. We will conduct and oversee extramural basic and applied research and translate research to operations. We will encourage and expand our strategic partnerships within NOAA and with the U.S. Coast Guard.

Geodesy

Through the National Geodetic Survey (NGS), we execute the Geodesy Program to provide the national framework for precision positioning. We manage the National Spatial Reference System (NSRS) — the foundation for safe and efficient commerce and transportation — to help the nation confidently move its goods and people, as well as build the supporting infrastructure of roads, bridges, buildings, and utilities. Geodesy is integrally linked to many NOAA strategic outcomes, including supporting environmentally sound development of the U.S. transportation system. We will support improvements to Geodesy monitoring and observing systems, enhance the integration of systems and outputs, and leverage partnerships for maximum productivity. With a robust Geodesy research and development program, we will continue moving products and services from research to operations. We will support assessment tools such as the Airport Surveys Program for aviation managers and the Shallow Water Positioning System (SWaPS) for coastal resource managers. We will focus on building regional positioning capacity of states, counties, and the private sector using state geodetic advisors and coordinators, spatial reference centers, web-based Geodesy lesson plans, and an expanded workshop program.

Geodesy's infrastructure will continue to allow for consistent, accurate, and timely positioning through models and tools describing phenomena affecting positioning. We will aim to reduce required infrastructure by building outside capacity. This means continued efforts to support NSRS, mapping, navigation, boundary and property delineation, infrastructure development, resource evaluation surveys, and scientific applications on applying geodetic, photogrammetric, and remote sensing technologies. We will stress technology transfer services to Federal, state,

and local government personnel, the private sector, and other nations through programs such as state advisors, state geodetic coordinators, spatial reference centers, cooperative surveys, and special training and guidance. Our continued research in the geosciences will focus on earth orientation, absolute gravity, satellite geodesy, and related fields.

Geodesy will work with internal partners: Office of Coast Survey (OCS); Center for Operational Oceanographic Products and Services (CO-OPS); Coastal Services Center (CSC); OAR's Forecast Systems Lab (FSL), and NWS Space Environment Center. We will work with external partners: Federal Aviation Administration; Spatial Reference Centers; State Geodetic Advisor and State Geodetic Coordinator Programs; Continuously Operating Reference Stations (more than 70 non-NOAA entities); Department of Homeland Security; Department of Defense; academia and professional organizations; and private sector contracting and collaboration.

Marine Transportation Systems

The U.S. Marine Transportation System is the world's most extensive system of navigable waterways, ports and harbors for moving cargo and people safely and reliably. NOS and NESDIS are primary contributors to NOAA's Marine Transportation Systems Program (MTSP) to provide world-class products, information, tools, and services for safe, efficient, and environmentally-sound flow of goods and people through the U.S. Marine Transportation System. We will continue to help reduce risk of maritime accidents, thereby saving lives and property and protecting the environment. We will help increase the efficiency and thus the economic return of maritime commerce. In an environmentally responsible way, we will facilitate development and operation of landside port infrastructure and support homeland security.

To meet the needs of a fast-growing Marine Transportation System, and working through OCS, CO-OPS, and NGS, we will supply integrated navigation services such as raster and electronic navigational charts; coast pilots; hydrographic surveys; navigation response teams; and navigation managers who serve as OCS field representatives. We will make available historical and real-time observations and predictions of water levels, coastal currents, and other meteorological and oceanographic data. We will offer state-of-the art methods of shoreline data collection through remote sensing technologies to support navigation products and to maintain the National Shoreline. We will rely on the ORR, OCRM, CSC, and Sea Grant to address infrastructure problems of the port landside by applying NOAA expertise on development issues.

The MTSP relies on end-to-end activities that NOS will supply to successfully deliver timely, accurate, and reliable information products and services. We must foster research and development for new technologies and products to improve navigation safety and environmental sustainability of the marine transportation system. This will involve acquiring hydrographic and oceanographic observations: the MTSP contains a number of observing systems recognized as national backbones for the Integrated Ocean Observing System, such as the National Water Level Observations Network and Physical Oceanographic Real Time Systems. This will involve providing nowcasts and forecasts through models for marine transportation. We will strive to offer what is needed to facilitate economic redevelopment and environmental stewardship of port infrastructure. We can, and will, make the system work with customer support, education, and regional and international outreach.

The Geodesy Program will continue to provide advanced geodetic knowledge base and positioning services to the MTSP. Environmental Modeling Program will offer oceanographic

modeling expertise. The Office of National Marine and Aviation Operations (NMAO) will support MTSP with the platforms and personnel to acquire hydrographic, shoreline, and oceanographic data. We will rely on the U.S. Coast Guard and U.S. Army Corps of Engineers, state Coastal Zone Management Programs, and local communities to balance economic development and environmental protection along the coast.

Provide Critical Support for NOAA's Mission

Integral to our strategic planning is strong and efficient support services to meet NOAA's mission goals and address the NOS priorities. Our facilities, data-processing systems, computing and communication systems, financial and administrative offices, and approach to management must support the NOAA Programs and adapt to evolving mission needs.

NOS Core Values

People
Integrity
Excellence
Teamwork
Ingenuity
Science
Service
Stewardship

To achieve NOAA's mission goals, we must commit to organizational excellence through management and leadership. We will provide the administrative, financial, and information technology services that enable us to deliver effective products and services. We will continue to improve the policy, programmatic, and managerial functions that support our mission goals. Our administrative and finance programs will work together to attain efficient management of our assets, business processes, and financial resources.

Our NOAA workforce is the heart and soul of our commitment to organizational excellence. At NOS, we embody NOAA's vision and core values. We seek a diverse, highly trained, and customer-service-oriented staff willing to embrace change. We value individual differences and promote teamwork in serving our customers and partners. We want a comprehensive training program for all employees, so NOAA can engage a strong workforce and develop tomorrow's leaders. We want a supportive environment and infrastructure to get the job done. We will keep facilities and equipment in good condition; enable information technology systems; offer excellent administrative support; and ensure workplace safety and security. We will make cost-effective decisions regarding integrated architecture for information technology. As a result of improved budget, financial, and cost management systems, we will focus on cost-effective mission delivery of products and services to our customers and partners. Most importantly, we will be good stewards of taxpayer resources, demanding the highest integrity in our financial control and audit systems.

A Dynamic Future

We have a challenging vision for the future of ocean and coastal leadership. In leading by doing, we will create the tools, information, and partnerships to succeed. Through our products and services, we will promote balanced stewardship. We will ensure a continuous, interactive, and adaptive process that engages all stakeholders and considers the full range of issues and concerns. As in the *NOAA Strategic Plan,* we will execute crosscutting priorities:

World Class Workforce — Our people are our most critical asset. We want our employees to be recognized nationally and internationally for their outstanding expertise. We aspire to a diverse, highly skilled workforce. We will reward teamwork, cooperation, creativity, risk-taking, and open debate. We will expand our communications within and outside NOAA and improve performance accountability with employees, stakeholders, and the public. Young people from

high school through college need access to NOAA career fairs and seminars. We will increase the number and diversity of students interested in ocean and coastal-related careers through support of the Education Partnership Program, Minority Supporting Institutions (MSI), and fellowships and internships.

Integrated Global Environmental Observation and Data Management — Ocean observations are essential to our mission. We will lead development of observation and data management systems into an Integrated Ocean Observing System (IOOS). With partners here and abroad, we will incorporate measurements on valuable hydrographic, geodetic, land cover, topographic, and water-level information. We will foster regional collaborations for observing coastal conditions through the Federal interagency National Ocean Research Leadership Council and Ocean.US.

Sound, State of the Art Research — NOS will further NOAA's goal to produce excellent research by supporting short- and long-term research that aims to understand and predict the effects of natural and human-caused stresses on our coastal resources. We will strive to determine the appropriate management and stewardship responses to these stresses. We will work with partners in government, academia, and the private sector to transition research findings into new technologies, practical coastal management decision tools, and agency operational programs.

Environmental Literacy — Every American must understand the issues facing the ocean and coasts. Our coastal managers and local decision makers will need educational programs and tools to ensure environmentally sustainable management.

International Leadership — Through our International Program, we seek to have global influence and impact. We want to work collaboratively with other nations on projects of global scope, including proactive participation in international ocean policy formulation and governance. We will continue to work with international partners such as the United Nations Environment Programme, the International Maritime Organization, the International Hydrographic Organization, the Intergovernmental Oceanographic Organization, World Conservation Union, and the International Coral Reef Initiative on cross-boundary issues that affect the world's marine and coastal environments and efforts in mapping and charting.

We are proud to serve the American people by engaging in solutions to the most challenging problems ahead. Whether we are developing a new Automated Underwater Vehicle (AUV) technology, using Light Detection and Ranging (LIDAR) and digital photography, forecasting harmful algal blooms, or launching a comprehensive maritime heritage program, we want to be an agent of change for our ocean, coasts, and Great Lakes resources. We will create the best possible products and services for the American people and for our natural heritage.

Appendix I — Role of NOS Offices in NOAA Programs

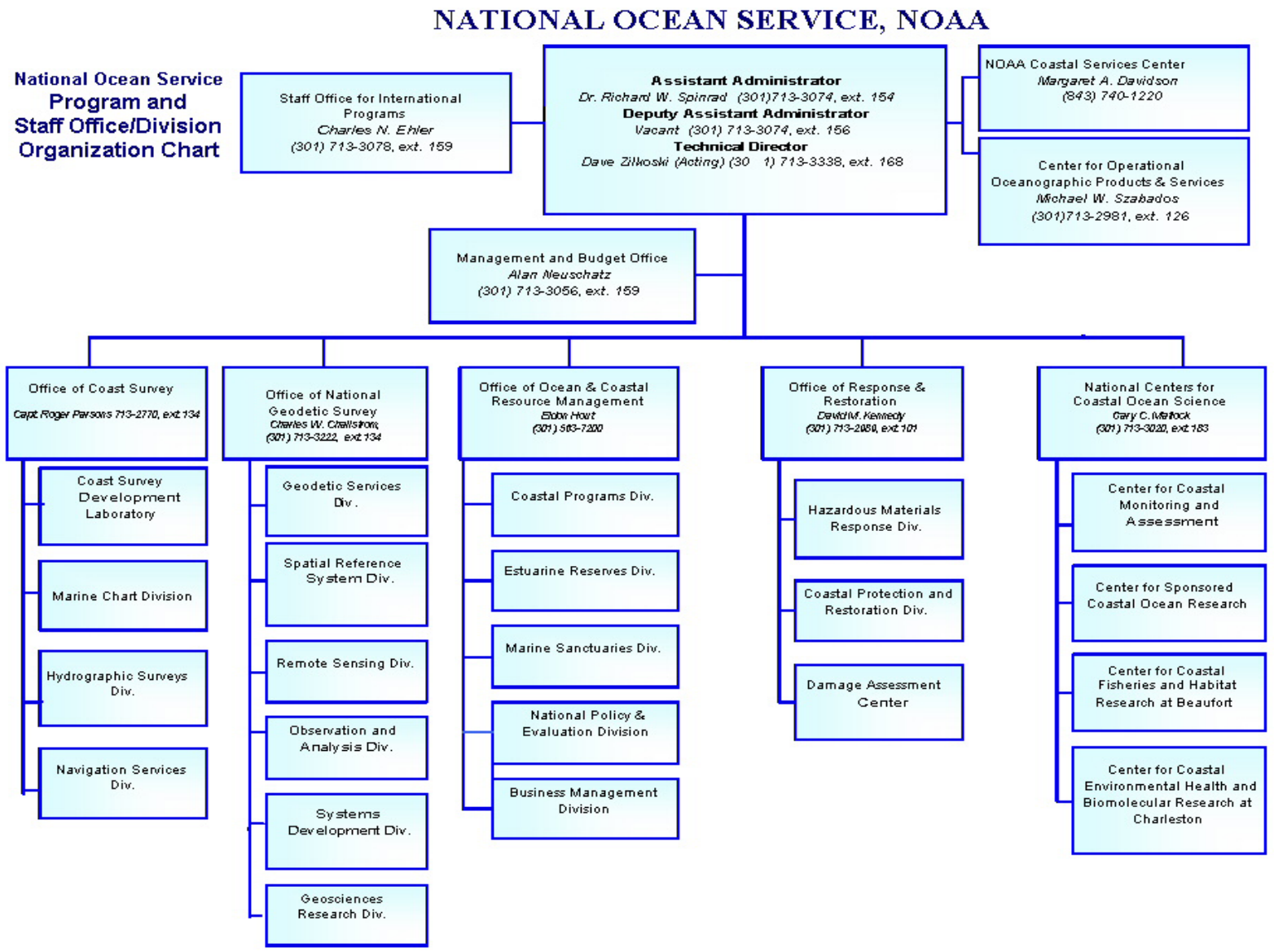
We believe strongly in matrixed resources across NOS and across NOAA. The following table shows NOS offices accountable for milestones within NOAA Programs. Additionally, there are resource-sharing relationships not indicated that are also essential to NOAA's mission success.

NOS Offices

Center for Operational Oceanographic Products and Services	CO-OPS
Coastal Services Center	CSC
International Programs	IP
National Centers for Coastal Ocean Science	NCCOS
National Geodetic Survey	NGS
National Marine Sanctuaries Program	NMSP
Ocean and Coastal Resource Management	OCRM
Office of Coast Survey	OCS
Office of Response and Restoration	ORR
Management and Budget (Includes Special Projects)	MB

NOAA Programs	NOS Offices									
	OCRM	NMSP	CSC	IP	ORR	NCCOS	NGS	CO-OPS	OCS	MB
Coastal and Marine Resources	✦	✦	✦	✦						✦
Corals	✦	✦		✦	✦	✦			✦	✦
Enforcement		✦								✦
Ecosystem Observations						✦				✦
Ecosystem Research						✦				✦
Habitat					✦			✦		✦
Coasts, Estuaries, and Oceans			✦					✦		✦
NOAA Emergency Response					✦					✦
Geodesy							✦			✦
Marine Transportation Systems					✦		✦	✦	✦	✦

Appendix II — NOS Organization Chart



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